

### **REMARKS**

This paper is in response to the March 6, 2009 Office Action. Applicants respectfully request reconsideration of the rejections in that Office Action. Applicants submit that this Amendment is timely filed as June 6<sup>th</sup> was a Saturday.

Applicants respectfully request that the Examiner in the next paper cite the Akerstedt article that was used in the 35 U.S.C. §102(b) rejection as Applicants believe it is not of record. There was another Akerstedt article submitted by Applicants, but that article was from 1990.

#### **I. Claim Amendments**

Claims 1-3, 35, and 37-44 are pending in this application. Claims 1 and 35 have been amended in a manner similar to the recommendation of the Examiner to address the 35 U.S.C. §101 rejection. Claims 1-3 have been amended to further define the invention. Claims 37-39 further define aspects related to the sleep/wake data of claim 2. Claims 40 and 42 further define the circadian rhythm of claims 2 and 3, respectively. Claims 41 and 43 further define the calculating means of claims 2 and 3, respectively. Claim 44 further defines the sleep/wake data recited in claim 1.

#### **II. 35 U.S.C. §101 Rejection**

Claims 1 and 35 have been rejected under 35 U.S.C. §101 allegedly because they are directed to non-statutory subject matter. Applicants respectfully traverse this rejection.

Claims 1 and 35 have been amended to recite the source of the sleep/wake data and data series, respectively. The claims have also been amended to recite that certain steps are performed by a processor. Since the amendments were based on

recommendations from the Examiner, Applicants respectfully request that this rejection be withdrawn.

### **III. 35 U.S.C. §102(b) Rejection**

Claims 1-3 have been rejected under 35 U.S.C. §102(b) as allegedly anticipated by Akerstedt, *The Three-Process Model of Alertness and Its Extension to Performance, Sleep Latency, and Sleep Length*, Chronobiology International, 14(2), 115-123 (1997) (hereinafter "Akerstedt 1997"). Applicants respectfully traverse this rejection.

Claim 1 recites "calculating a cognitive level of a person using a processor based on the person's sleep/wake data received from an actigraph or a polysomnography system". Akerstedt 1997 does not disclose the source of the information about prior sleep and prior wake periods of the person. Akerstedt 1997 specifically does not reference an actigraph or a polysomnography system as being the source of sleep/wake data. Therefore, claim 1 is not anticipated by Akerstedt 1997.

Claim 2 recites "means for determining a cognitive level of a person based on the person's sleep/wake data". Applicants respectfully submit that this language invokes 35 U.S.C. §112, sixth paragraph. As discussed in the specification at paragraphs [0128]-[0130], the determining means includes components to select a function and then to calculate a cognitive performance using the selected function, for example, as hardware or a set of instructions for operation of a processor. As developed throughout the application, the functions are selected from a set of four functions that may be used in a variety of combinations and in some cases omitted. Akerstedt 1997 does not disclose anything equivalent to this structure. Therefore, claim 2 is not anticipated by Akerstedt 1997.

Applicants respectfully submit that Akerstedt 1997 is silent as to any disclosure of computer-readable medium, and as such can not anticipate claim 3. Additionally, claim 3 recites "second program instruction means for determining a cognitive level of a person based on the person's sleep/wake data". Applicants respectfully submit that this language invokes 35 U.S.C. §112, sixth paragraph. Akerstedt 1997 does not disclose anything equivalent to the structure linked to the determining means as discussed above in connection with claim 2. Therefore, claim 3 is not anticipated by Akerstedt 1997.

Applicants respectfully request that this rejection be withdrawn as overcome.

#### **IV. Conclusion**

In view of the foregoing remarks, it courteously is urged that all the claims are allowable and that the application is in condition for allowance. If the Examiner believes that the prosecution could be advanced through a telephone conversation, then the Examiner is invited to telephone the undersigned. Favorable action in this regard earnestly is solicited.

Respectfully submitted,  
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